UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

REALTIME DATA LLC d/b/a IXO, Plaintiff, v. ACTIAN CORPORATION and PERVASIVE SOFTWARE INC., Defendants.	**LEAD Case No. 6:15-cv-463-RWS-JDL**
REALTIME DATA LLC d/b/a IXO, Plaintiff, v. BMC SOFTWARE, INC. Defendant.	Case No. 6:15-cv-464-RWS-JDL
REALTIME DATA LLC d/b/a IXO, Plaintiff, v. DROPBOX, INC., Defendant.	Case No. 6:15-cv-465-RWS-JDL
REALTIME DATA LLC d/b/a IXO, Plaintiff, v. ECHOSTAR CORPORATION AND HUGHES NETWORK SYSTEMS, LLC, Defendants.	Case No. 6:15-cv-466-RWS-JDL
REALTIME DATA LLC d/b/a IXO, Plaintiff, v. ORACLE AMERICA, INC., HEWLETT- PACKARD COMPANY, and HP ENTERPRISE SERVICES, LLC, Defendants.	Case No. 6:15-cv-467-RWS-JDL
REALTIME DATA LLC d/b/a IXO, Plaintiff, v. RIVERBED TECHNOLOGY, INC. and DELL INC., Defendants.	Case No. 6:15-cv-468-RWS-JDL

REALTIME DATA LLC d/b/a IXO,
                    Plaintiff,
                    v.
SAP AMERICA INC., SYBASE, INC.,
HEWLETT-PACKARD COMPANY, and
HP ENTERPRISE SERVICES, LLC,
                    Defendants.
	Case No. 6:15-cv-469-RWS-JDL

REALTIME DATA LLC d/b/a IXO,
                    Plaintiff,
                    v.
TERADATA CORPORATION and
TERADATA OPERATIONS, INC.
                    Defendants.
	Case No. 6:15-cv-470-RWS-JDL

PLAINTIFF REALTIME DATA LLC d/b/a IXO'S OPPOSITION TO DEFENDANTS' MOTIONS TO DISMISS

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I.   **INTRODUCTION**

To prevail on their Motions, Defendants bear the heavy burden of demonstrating that the claims of the asserted patents fail step 1 and step 2 of the *Alice* framework. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347 (2010). Defendants demonstrate neither.[1]

At *Alice* step 1, Defendants use virtually the same, stripped-down description for all asserted patents. This oversimplification is legally incorrect. It is also at odds with the patents themselves, which are directed to different improved, particularized inventions in digital data compression, including: (1) digital data compression utilizing content-dependent and content-independent encoders to compress data blocks based on an analysis of the specific content or type of the data being encoded; (2) digital data compression utilizing a combination of run length encoders and parametric dictionary encoders based on the content of the digital data; or (3) digital data compression utilizing a plurality of encoders and a compression descriptor for accelerated storage and retrieval of data blocks. None of these are abstract ideas. Instead, under any fair interpretation, the claims here are patent-eligible under controlling law because they provide technical solutions to technical problems specific only to the compression of digital computer data. *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

Defendants' Motions also fail at *Alice* step 2. Even using Defendants' inaccurate summaries of the asserted patents, the claims are still patent-eligible because they add additional elements that were not well-understood, routine, or conventional. Defendants' flawed arguments again skip key limitations and ignore the problems in digital data compression that the claimed inventions solve. At the very least, there are numerous claim construction disputes and underlying issues of material fact that preclude dismissal at the pleading stage.

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[1] Defendants filed five motions to dismiss: the first by SAP America Inc., et al., Dkt. 23 ("SAP Mot."), the second by Dropbox, Inc., Dkt. 26, incorporating and adopting in full the SAP Mot.,the third by Actian Corporation and Pervasive Software Inc., Dkt. 31 ("Actian Mot."), the fourth by Riverbed Technology, Dkt. 38, also incorporating and adopting in full the SAP Mot., and the fifth by Dell Inc., Dkt. 44, also incorporating the SAP Mot., but in a motion pursuant to Fed. R. Civ. P. 12(c) rather than 12(b)(6) (collectively, "Defendants' Motions" or "Motions"). This opposition is filed in response to all five motions.

Accordingly, Defendants cannot show that the asserted patent claims are ineligible under § 101 under any standard, let alone the heightened standards they face in their Motions.

II.   STATEMENT OF ISSUE TO BE DECIDED

Whether Defendants failed to establish by clear and convincing evidence that the claims of U.S. Patent Nos. 7,378,992 ("'992 Patent"), 7,415,530 ("'530 Patent"), 6,597,812 ("'812 Patent"), and 8,643,513 ("'513 Patent") (collectively, "asserted patents") are patent-ineligible subject matter under 35 U.S.C. §101.

III.   THE PATENTS-IN-SUIT

The asserted patents can be categorized into three distinct families, namely, the: (1) content-dependent and content independent data compression family (*e.g.*, '992 and '513 Patents, which share a common specification); (2) run-length and dictionary encoding compression family (*e.g.*, '812 Patent); and (3) data acceleration family (*e.g.*, '530 Patent). *See*, *e.g.*, *Realtime Data LLC d/b/a IXO v. Packeteer, Inc., et al.*, Case No. 6:08-cv-144, Dkt. 371, at *2 (E.D. Tex. June 22, 2009).[2]

These patent families have some level of commonality in that they teach various improved systems and methods for digital data compression. *See*, *e.g.*, '530 Patent at 1:15-55 ("Diffuse digital data is thus a representation of data that . . . is typically not easily recognizable to humans in its native form.   There are many advantages associated with digital data representation . . . [o]ne outcome of digital data representation is the continuing need for increased capacity in data processing, storage, and transmittal."); *see also*, *e.g.*, '992 Patent at 1:20-63; '513 Patent at 1:29-2:3; '812 Patent at 1:13-56, 2:13-19.   Despite these commonalities, each patent family is directed to different systems and methods of digital data compression, detailed below.

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[2] Realtime respectfully requests the Court to take judicial notice of the Court's description of the certain patent families, as the facts are part of the public record not subject to any reasonable dispute. *Randall D. Wolcott, M.D., P.A. v. Sebelius*, 635 F.3d 757, 763 (5th Cir. 2011) ("Generally, a court ruling on a 12(b)(6) motion may rely on the complaint, its proper attachments, documents incorporated into the complaint by reference, and matters of which a court may take judicial notice."); Fed. R. Evid. 201(b).

A.   The '992 and '513 Patent Family

The '992 and '513 Patents' claims are directed to systems and methods of digital data compression utilizing content-dependent and content-independent encoders to compress data blocks based on an analysis of the specific content or type of the data being encoded. *See, e.g.*, '992 Patent at Abstract and 3:51-54; '513 Patent at Abstract and 3:55-58. The '992 and '513 Patents addressed specific problems in the realm of optimally compressing digital data, including, "lossless" compression, where "the decoded (or reconstructed) data is identical to the original uncompressed data":

- "their content sensitive behavior . . . often referred to as data dependency"

- "significant variations in the compression ratio obtained when using a single lossless data compression[3] technique for data streams having different data content and data size [*i.e.*,] natural variation"

'992 Patent at 2:20-59. The patents further explain, "conventional content dependent techniques may be utilized" to combat some of the problems described above. *Id*. at 2:59-65. But even those content dependent techniques had limitations, including:

- "the ability for any data compression supplier or consortium to acquire, store, and access the vast amounts of data required to identify known file descriptors and associated data types, data structures, and formats"

- "the rate at which new application programs are developed and the need to update file format data descriptions accordingly"

'992 Patent at 2:66-3:10.

The '992 and '513 Patents solve these technical problems and others with the novel technical solution in digital data compression utilizing content-dependent and content-independent encoders to compress data blocks based on an analysis of the specific content or type of the data being encoded. The patents describe the "invention [as being] directed to systems and methods for providing fast and efficient data compression using a combination of content independent data compression and content dependent data compression." *Id*. at 3:51-5:6; *see also* '513 Patent at 3:55-5:7. For instance, when one or more computer-data parameters are

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[3] In "lossless" compression, "the decoded (or reconstructed) data is identical to the original uncompressed/unencoded data." *E.g.*, '992 Patent at 2:12-16.

identified in the content of the digital data blocks, the claimed invention will utilize a content-dependent compression encoder. And if no such computer-data parameter is identified, the claimed invention will utilize a content-independent encoder. The figure on the cover of the '513 Patent is illustrative of one preferred embodiment, as it depicts a system with both content dependent and content independent decoders:
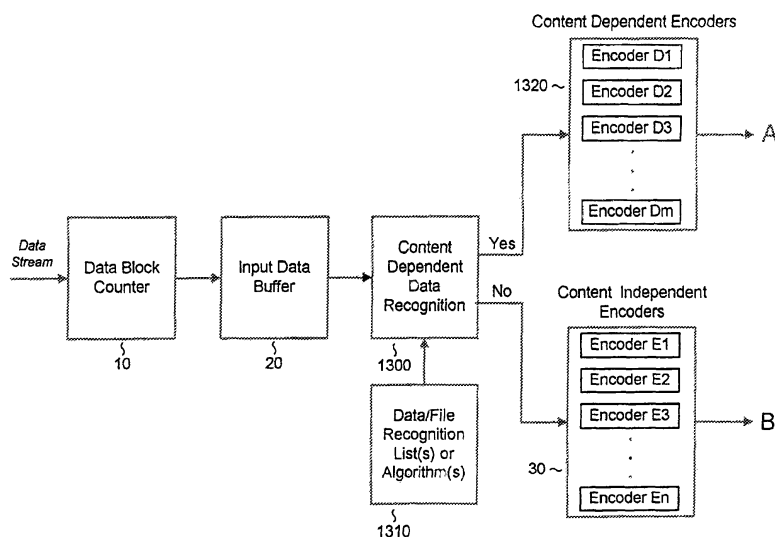
B. The '812 Patent Family

The '812 claims are directed to systems and methods of digital data compression utilizing a combination of run length encoders and parametric dictionary encoders based on the content of the digital data. *See, e.g.*, '812 Patent at Abstract, 3:5-11.[4] These are described as suitable for use in "real-time lossless data compression and decompression applications." *Id*. The '812 Patent addressed both the importance of data compression in the digital environment and the specific problems that existed in this realm of digital data compression:

> "It is well known within the current art that data compression provides several unique benefits. First, data compression can reduce the time to transmit data by more efficiently utilizing low bandwidth data links. Second data compression economizes on data storage allows more information to be stored for a fixed memory size by representing information more efficiently."

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[4] "Dictionary" encoders are lossless digital data compression encoders. *See* '812 Patent at 4:42-62; 5:14-51.

'812 Patent at 2:13-19.   But the patent explains that there are many problems associated with

data compression techniques of the prior art, including:

- "[o]ne fundamental problem with almost all modern approaches is the compression ratio verses the encoding and decoding speed achieved"

- "[a]lgorithmic efficiency assumes that a given algorithm is implemented in an optimum object code representation executing from the optimum places in memory [but] is virtually never achieved in practice due to limitations within modern optimizing software compilers"

- "an optimum algorithmic implementation for a given input data set may not be optimum for a different data set"

'812 Patent at 2:21-3:2.

The '812 Patent aimed to solve these problems with the novel technical solution in real-

time digital data compression utilizing a combination of run length encoders and parametric

dictionary encoders based on the content of the digital data. For example, the patent describes

the "invention [as being] directed to systems and methods for providing lossless data

compression and decompression [and] exploits various characteristics of run-length encoding,

parametric dictionary encoding, and bit packing to comprise an encoding/decoding process

having an efficiency that is suitable for use in real-time lossless data compression and

decompression applications." '812 Patent at 3:5-4:24. The figure on the cover of the '812 Patent

is illustrative of one preferred embodiment, as it discloses a system whose encoder utilizes both a

run-length encoder and a dictionary encoder:
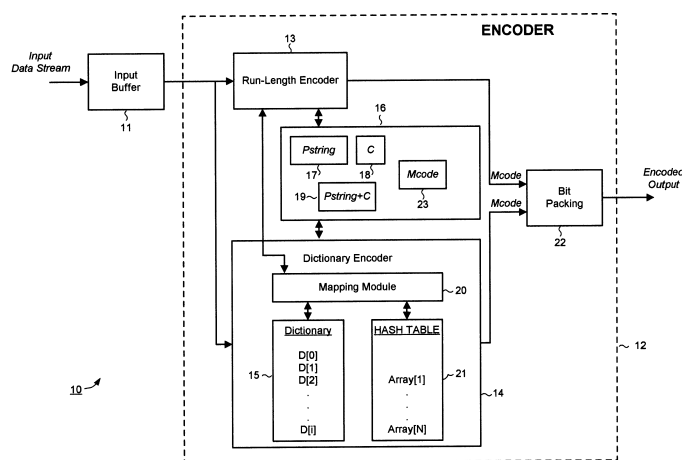
C.   The '530 Patent Family

The '530 claims are directed to systems and methods of digital data compression utilizing

a plurality of encoders and a compression descriptor for accelerated storage and retrieval of data

blocks. *See*, *e.g.*, '530 Patent at Abstract, 2:58-60; *Realtime Data LLC, d/b/a IXO v. Metropcs*

Texas, LLC, et al., 6:10-cv-493-LED-JDL, Dkt. 438, at *1-2 (E.D.Tex. Oct. 1, 2012).[5] The '530

Patent addressed problems that existed in this realm of digital data compression, including:

- "high performance disk interface standards . . . offer only the promise of higher data transfer rates through intermediate data buffering in random access memory"

- "[f]aster disk access data rates are only achieved by the high cost solution of simultaneously accessing multiple disk drives with a technique known within the art as data striping"

- "problems with bandwidth limitations similarly occur within the art by all other forms of sequential, pseudorandom, and random access mass storage devices"

'530 Patent at 2:19-54.

The '530 Patent solves these problems with the novel technical solution in digital data

compression utilizing a plurality of encoders and a compression descriptor for accelerated

storage and retrieval of data blocks. The novel approaches taught in the specification include:

- "provid[ing] an effective increase of the data storage and retrieval bandwidth of a memory storage device"

- "data storage and retrieval accelerator method and system [being] employed in a disk storage adapter to reduce the time required to store and retrieve data from computer to a disk memory device"

- "data storage and retrieval accelerator method and system [being] employed in conjunction with random access memory to reduce the time required to store and retrieve data from random access memory"

'530 Patent at 2:58-3:58.

Figure 8 of the '530 Patent is illustrative of one preferred embodiment:

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[5] Realtime respectfully requests the Court to take judicial notice of the Court's description of '530 Patent, as the facts are part of the public record not subject to any reasonable dispute. *Wolcott*, 635 F.3d at 763; Fed. R. Evid. 201(b).
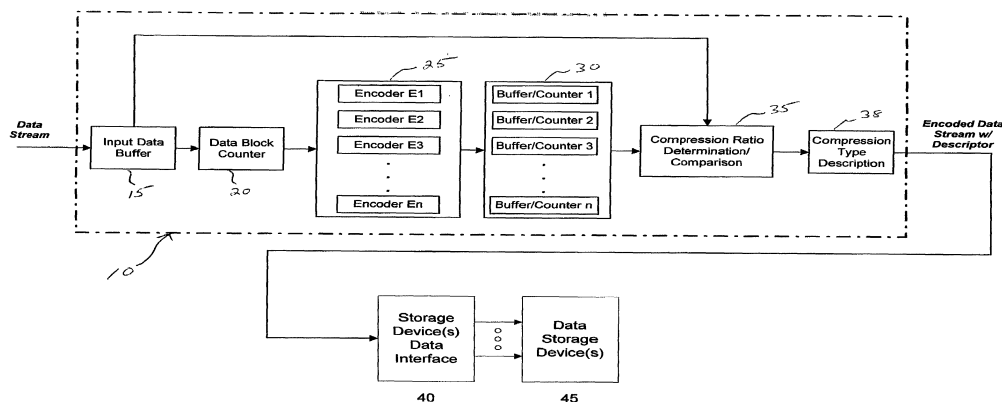
FIGURE 8

IV.   LEGAL STANDARDS

A.   Patent-Eligible Subject Matter Under 35 U.S.C. §101

Section 101 of the Patent Act defines patentable subject matter: "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. §101. "Congress took this permissive approach to patent eligibility to ensure that ingenuity should receive liberal encouragement." *Mirror Worlds Technologies, LLC, v. Apple, Inc., et al.*, Case No. 6:13-cv-419, Dkt. 346, at *13 (E.D. Tex. Jul. 7, 2015) (*quoting Bilski v. Kappos*, 561 U.S. 593, 601 (2010)).   There are three narrow exceptions to §101's broad patent-eligibility principles: laws of nature, physical phenomena, and abstract ideas. *Bilski*, 561 U.S. at 594.   The Supreme Court has warned, however, that interpreting these exceptions too broadly could "swallow all of patent law," as "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Alice Corp.*, 134 S.Ct. at 2354.

In *Alice*, the Supreme Court articulated a two-step analysis for determining patent eligibility under §101. *Alice Corp.,*134 S.Ct. at 2355. First, the court must determine "whether the claims at issue are directed to [a] patent-ineligible concept," such as an abstract idea. *Id*. Second, if the claims are directed to an abstract idea, the court must then "consider the elements of each claim both individually and 'as an ordered combination' to determine whether [the

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claims contain] an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.'" *Id*. The abstract-ideas exception does not apply if the invention "improve[s] an existing technological process" or "solve[s] a technological problem in 'conventional industry practice.'" *Id*. at 2358.

More recently, the Federal Circuit in *DDR Holdings* provided further guidance based on the principles set forth in *Alice*. The Federal Circuit held that the claims before it were patent-eligible and "stand apart" from cases involving abstract claims because they "do not merely recite the performance of some business practices known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *DDR Holdings*, 773 F.3d at 1257.

B.   **Motions to Dismiss Under Rule 12(b)(6)**

"To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). Viewing them in the light most favorable to the plaintiffs, well-pleaded factual allegations "must be enough to raise a right to relief above the speculative level." *Bell Atl. Corp. v. Twombly,* 550 U.S. 544, 555 (2007).

The presumption of patent validity applies with any §101 analysis. *See Microsoft Corp. v. i4i Ltd. P'ship*, 131 S.Ct. 2238, 2245 (2011). Thus, a motion to dismiss for patent ineligibility is appropriate "solely when the only plausible reading of the patent is that there is clear and convincing evidence of ineligibility." *Card Verification Solutions, LLC. v. Citigroup Inc.*, 2014 U.S. Dist. LEXIS 137577, at *6 (N.D. Ill. Sept. 29, 2014).

V.   **THE CLAIMS OF THE PATENTS-IN-SUIT ARE PATENT-ELIGIBLE UNDER EACH STEP OF THE *ALICE* FRAMEWORK**

A.   **Defendants Cannot Establish That The Patent Claims Are Directed To An Abstract Idea Under *Alice* Step 1**

Under *Alice* step 1, Defendants must demonstrate that the patented claims are directed to an abstract idea. *Alice Corp.*, 134 S.Ct. at 2355. Defendants fail to do so. In an attempt to force

the asserted patents into the "abstract ideas" bucket of inapposite cases they rely on, Defendants

provide oversimplified, inaccurate characterizations of even the core concepts in the claimed

inventions. The patented inventions obviously cannot be performed by "pencil and paper," nor

can they be used with any application under the sun. Instead, under any fair interpretation, the

claims here are patent-eligible under controlling law because they provide technical solutions to

technical problems specific only to the compression of digital computer data.

> **1.   Defendants' Sweeping Oversimplification Of The Inventions Is Legally Flawed And Contradicted By The Patents**

While a summary of a claim will necessarily omit details, to capture what a claim is

directed to, the summary must include the core features of the claim. *See, e.g.*, *Smartflash v.*

Apple, 2015 WL 661174, at *6 (E.D. Tex. Feb. 13, 2015); *see also Summit 6 LLC v. HTC*

Corporation, Case No. 7:14-cv-00014-O, Dkt. 248, at *10 (N.D. Tex. May 28, 2015) ("When

evaluating a patent's underlying concept, courts are instructed not to characterize the concepts at

too high a degree of generality."). For example, to argue that the claims were directed to abstract

ideas, the defendant in *DDR Holdings* omitted key concepts and inaccurately summarized the

patented invention as "making two web pages look the same." *DDR Holdings,* 773 F.3d at 1255-

59. The Federal Circuit rejected that bare description. *Id*. Instead, the court held that the claims

were directed to "methods of generating a composite web page that combines certain visual

elements of a 'host' website with content of a third-party merchant." *Id*. at 1248. Under this

correct characterization, the court held that the claims were patent eligible. *Id*. at 1259.

As in *DDR Holdings*, Defendants here provide oversimplified and incorrect

characterizations of the patented claims, a replay of the unsuccessful strategy used by the *DDR*

Holdings defendant.   Indeed, Defendants use virtually the same exact description—"using

multiple known compression techniques and determining which to use next based on the nature

of the data"—to cover all four patents. *E.g.*, SAP Mot. at 1-2, 15.[6]

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[6] Actian and Pervasive have essentially the same characterization of the '992 and '513 Patents
("analyzing the nature of data to make a determination regarding which of multiple potential
compression algorithms to use to compress that data and then applying that compression method
to the data") and only a slightly different description for the '530 Patent ("compressing data

But even with respect to patents in the same patent family, the "separate patents describe 'separate and distinct [inventions],' 35 U.S.C. § 121 . . . and it cannot be presumed that related patents rise and fall together." *Comair Rotron, Inc. v. Nippon Densan Corp.*, 49 F.3d 1535, 1539 (Fed. Cir. 1995); *see also Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1231-32 (Fed. Cir. 1994) ("even though all six patents arise from the same parent application, each patent claims a different invention."). Here, Defendants use their "characterizations" to describe all four asserted patents, even though they are from three separate patent families. Thus, Defendants' oversimplifications are incorrect as a matter of law.

Defendants' oversimplifications also fail on the facts because they omit core concepts of the claims. For example, even if all four patent specifications were lumped together and distilled to a single concept, that concept would still be necessarily directed to improved, particular systems and methods of **digital data** compression. *See*, *e.g.*, '530 Patent at 1:15-2:18 ("Diffuse **digital data** is thus a representation of data that . . . is typically **not easily recognizable to humans** in its native form. There are many advantages associated with **digital data representation**. . . One outcome of **digital data** representation is the continuing need for increased capacity in data processing, storage, and transmittal.") (emphasis added); *see also, e.g.*, '992 Patent at Abstract, 1:20-63, and 2:66-5:6; '513 Patent at Abstract and 1:29-5:8; '812 Patent at Abstract , 1:13-56, and 3:5-4:24.

To be directed to an abstract idea, the core aspects of the claims must in fact constitute nothing more than an abstract idea, such as: (a) "a fundamental truth," *e.g.*, *Alice Corp.*, 134 S.Ct. at 2355 (internal quotes omitted); (b) a "mathematical [] algorithm," *e.g.*, *Gottschalk v. Benson*, 93 S.Ct. 253, 257 (1972); or (c) "a fundamental economic [or business] practice long prevalent in our system of commerce," *Bilski*, 561 U.S. at 611. Even in the broadest sense, the claimed inventions cover three improved, particularized systems and methods of digital data

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blocks in a data stream using multiple compression techniques"). *E.g.*, Actian Mot. at 3, 10. These descriptions are also oversimplified. At any rate, any differences between Defendants' characterizations reflect material factual issues that preclude dismissal, as Defendants themselves cannot agree on which oversimplification to use.

compression. Thus, none of them fit into any category of "abstract ideas."

When properly viewing each patent (or even patent family) as a distinct set of inventions, Defendants' oversimplifications become even more apparent. Each respective invention is directed to: (1) systems and methods of digital data compression utilizing content-dependent and content-independent encoders to compress data blocks based on an analysis of the specific content or type of the data being encoded ('992 and '513 Patents); (2) systems and methods of digital data compression utilizing a combination of run length encoders and parametric dictionary encoders based on the content of the digital data ('812 Patent); or (3) systems and methods of digital data compression utilizing a plurality of encoders and a compression descriptor for accelerated storage and retrieval of data blocks ('530 Patent). *E.g.*, '992 Patent at Abstract, 2:66-5:6, and 26:51-30:43; '513 Patent at Abstract, 1:52-5:8, and 26:22-28:39; '812 Patent at Abstract, 3:5-4:24, and 16:53-20:58; '530 Patent at Abstract, 2:19-3:58, and 18:23-20:18. Defendants provide no explanation for omitting these core concepts. Nor can they.

2.   Contrary To Defendants' Overstatements, The Claimed Inventions Obviously Cannot Be Performed By "Pencil And Paper"

In their effort to mislabel the patents as "abstract," Defendants provide far-fetched illustrations of the supposed breadth of the patent claims. Specifically, Defendants argue that the claimed inventions can be performed in the "human mind" or with "pencil and paper." *See, e.g.*, SAP Mot. at 2, 15. With this argument, Defendants warn that the patented inventions not only encompass data compression performed by computers, but also encompass text abbreviations (*e.g.*, acronyms, homonyms, emojis) and telegraph codewords used by humans. *See, e.g.*, SAP Mot. at 1, 15-17.[7] Respectfully, this argument does not pass the straight-face test.[8]

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[7] In making these exaggerated arguments, Defendants cite to publications and websites as "evidence." *See* SAP Mot. at 16-17, n. 7-12. Apart from being irrelevant to the claimed inventions, such documents are also improper on a Rule 12(b)(6) motion. *See Ryan, LLC v. Inspired Dev., LLC*, 2013 WL 6159288, at *10 (N.D. Tex. Nov. 25, 2013) ("Generally, a court ruling on a 12(b)(6) motion may rely on the complaint, its proper attachments, documents incorporated into the complaint by reference, and matters of which a court may take judicial notice. . . . [and] may not consider matters 'outside the pleadings.'").

[8] Here, the Defendants again show material factual disputes amongst themselves, as the Actian Mot. does not even make these arguments.

As an initial matter, Defendants get the law wrong. "Methods which can be performed entirely in the human mind are unpatentable not because there is anything wrong with claiming mental method steps as part of a process containing non-mental steps, but rather because computational methods which can be performed **entirely** in the human mind are the types of methods that embody the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none." *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (emphasis in original). Defendants do not apply the "human mind" argument to anything resembling the entire claim.

Other courts have held similar arguments inapplicable and "unhelpful." In *TQP Dev.*, Judge Bryson held patent eligible claims that "involve[d] a several-step manipulation of data that, except perhaps in its most simplistic form, could not conceivably be performed in the human mind or with pencil and paper." *TQP Dev., LLC v. Intuit Inc.*, 2014 WL 651935, at *4 (E.D. Tex. Feb. 19, 2014) (Bryson J.). Similarly, the claimed digital data compression techniques "could not conceivably be performed in the human mind or with pencil and paper." An ordinary system or method of digital data compression, let alone the particular patented inventions here, would be impossible to perform in the human mind or by pencil and paper. This is why other courts have held that this analysis is "unhelpful for computer inventions" and "mislead[s] courts into ignoring a key fact: although a computer performs the same math as a human, a human cannot always achieve the same results as a computer." *Cal. Institute of Tech. v. Hughes Commcn's Inc.*, 2014 U.S. Dist. LEXIS 156763, at *994-995 (C.D. Cal Nov. 3 2014). In short, Defendants' analogies are misplaced because, among other things, they "presume[] that the claimed invention can be separated from a computer environment." *Mirror Worlds Techs.*, Dkt. 346, at *18.

When looking at even the core aspects of the claimed inventions, Defendants' analogies fall apart. For example, the patented inventions are necessarily directed to improved systems of **digital data compression**. *E.g.*, '992 Patent at Abstract and 2:66-5:6; '513 Patent at Abstract and 1:52-5:8; '812 Patent at Abstract and 3:5-4:24; '530 Patent at Abstract and 2:19-3:58. This

distinction alone renders visual and/or written shorthand—like text, telegraph—wholly inapplicable.   The patents themselves state the obvious rebuttal to Defendants' incorrect "analogies": "**digital data** is thus a representation of data that [is] **not easily recognizable to humans** in its native form." *See, e.g.,* '530 Patent at 1:15-55 (emphasis added).

Moreover, in making their "human mind" and "pencil and paper" arguments, Defendants again ignore other key aspects of the claims. These aspects include: (1) using a plurality of the claimed "encoders;" (2) using "run-length" and "dictionary" lossless encoding techniques; (3) "descriptors;" or (4) data "compression and storage [that] occurs faster than said data stream is able to be stored on said memory device in said received form." *E.g.,* '992 Patent at Abstract, 2:66-5:6, and 26:51-30:43; '513 Patent at Abstract, 1:52-5:8, and 26:22-28:39; '812 Patent at Abstract, 3:5-4:24, and 16:53-20:58; '530 Patent at Abstract, 2:19-3:58, and 18:23-20:18.   At bottom, Defendants have not shown—and cannot show—that a human with pencil and paper can perform the claimed inventions.

3.   Even At This Early Stage, The Facts Undercut Defendants' Argument That The Patented Inventions Are "Application-Agnostic"

Continuing their trend of overstatement, Defendants also argue that the patented inventions are "application agnostic."   *See, e.g.,* SAP Mot. at 6; Actian Mot. at 5-6, 10.   This argument is meritless.   The specification and claims are restricted to digital data compression. *E.g.,* '992 Patent at Abstract and 2:66-5:6; '513 Patent at Abstract and 1:52-5:8; '812 Patent at Abstract and 3:5-4:24; '530 Patent at Abstract and 2:19-3:58.   For example, claim 48 of the '992 Patent requires "compressing . . . said data block," claim 1 of the '513 Patent requires "compressing a plurality of data blocks," claim 1 of the '812 Patent requires "compressing input data comprising a plurality of data blocks," and claim 1 of the '530 Patent requires "said data stream is compressed."

Even within the realm of digital data compression, the patent claims are further restricted; specifically, they do not cover all digital data compression systems and methods.   The specifications and claims confirm this, as they teach that multiple, different encoders must be

used—in a specific manner—with data-content analysis and data or compression descriptors. *See*, *e.g.*, '992 Patent at Abstract 2:66-5:6, and 26:51-30:43; '513 Patent at Abstract, 1:52-5:8, and 26:22-28:39; '812 Patent at Abstract, 3:5-4:24, and 16:53-20:58; '530 Patent at Abstract, 2:19-3:58, and 18:23-20:18. Defendants look past these core concepts.

Defendants also miss other relevant facts.   While there has yet to be any claim construction in this case, several core terms in the '530 and '992 Patents have been construed in previous cases.   And those constructions further confirm that the claimed inventions are not "application agnostic."   Rather, they are limited to particular applications in a digital data compression environment. *See*, *e.g.*, *Metropcs*, Dkt. 438, at *5-6, *9 (construing "receiving a data stream" as "receiving from an external source one or more data blocks transmitted in sequence," "memory device" as "an identified memory device to which data is directed for recording and later retrieval," and "descriptor…indicative of said first compression technique" as a "recognizable data token or descriptor" that is "indicative of said first compression technique" for the '530 Patent Family).

Additionally, a plain reading of the claims and specifications shows that the patented inventions do not "preempt" any field. Digital data compression can take place without using the inventions of the asserted patents.   For example, not every application of digital data compression technique "analyz[es] the data within the data block … wherein the analyzing … excludes [] based only on a descriptor indicative of the data type within the data block." '992 Patent Reexamination Certificate at 2:7-25.   Similarly, not every application of digital data compression techniques includes "a data accelerator" and "descriptor," as claimed in the '530 Patent, or the run-length encoders and dictionary encoders, as claimed in the '812 Patent. Moreover, not even every application of digital data compression techniques that utilizes two different types of encoders meets these requirements.

Using their inaccurate framing of the patented inventions, Defendants rely on cases that are wholly inapplicable.   For example, in arguing that the present claims are patent-ineligible subject matter, Defendants rely heavily on *Benson*. *See*, *e.g.*, SAP Mot. at 18-20. *Benson*,

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however, involved a "procedure for solving a given type of mathematical problem" using a generic computer. *Diamond v. Diehr*, 450 U.S. 175, 186 (1981). Therefore, the Court "held unpatentable claims for an algorithm used to convert binary coded decimal numbers to equivalent pure binary numbers." *Id.* at 185. As Judge Bryson has explained, "the application [in *Benson*] claimed, as the invention, a simple conversion from one number to another equivalent number in a different form. Thus, the invention was as basic as the conversion of Roman numerals into Arabic numerals." *TQP Dev.*, 2014 WL 651935, at *4. Digital data compression systems and methods, let alone the various improved, particularized digital data compression systems and methods asserted here, are not simple numeric conversions. Defendants' analogy to the *Benson* claims fail.

Similarly, in *Parker v. Flook*, 98 S.Ct. 2522 (1978), the Supreme Court explained that "[a]ll the application provided was a 'formula for computing an updated alarm limit,'" and thus, the claims were patent-ineligible. *Diamond*, 450 U.S. at 192 n.14. Judge Bryson also described the claims in *Flook* as "consist[ing] solely of applying an equation to compute an 'alarm limit,' *i.e.*, to calculate the likely presence of dangerous conditions in a certain chemical reaction process [that was] well understood [as was] the practice of monitoring the process variables and using alarm limits." *TQP Dev.*, 2014 WL 651935, at *4. In contrast, the claims here do not involve implementing well-known common practices on a computer, but rather improving upon techniques that are only performed on computer hardware and software.

Defendants further rely on other inapposite cases involving patent-ineligible subject matter. *See, e.g.*, *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715-16 (Fed. Cir. 2014) ("offering media content in exchange for viewing an advertisement"); *buySAFE v. Google, Inc.*, 765 F. 3d 1350, 1355 (Fed. Cir. 2014) ("creating a contractual relationship—a 'transaction performance guaranty'"); *Alice Corp.*, 134 S.Ct. at 2350 ("intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk"); *Digitech Image Technologies, LLC v. Electronics For Imaging, Inc.*, 758 F.3d 1344, 1350-51 (Fed. Cir. 2014) (process of combining two sets of "ethereal, non-physical" data into a "device profile"); *Versata Dev. Group, Inc. v. SAP Am., Inc.*,

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2015 WL 4113722, at *24 (Fed. Cir. July 9, 2015) ("determining a price, using organization and product group hierarchies"); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1368-69 (Fed. Cir. 2015) ("budgeting calculations" that can be done with "a simple notification device"); *CyberSource Corp.*, 654 F.3d at 1376 ("fraud detection method[s]" that "one could mentally perform"); *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 F. Appx. 988, 992 (Fed. Cir. 2014) ("collecting information in classified form, then separating and transmitting that information according to its classification"); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) ("the clearinghouse concept").

This case differs in at least one fundamental respect from *Benson*, *Flook*, and all other cases cited by Defendants. In Defendants' cases, "a computer was used to perform steps that were commonly performed without a computer." *See TQP Dev.*, 2014 WL 651935, at *7. In contrast, the asserted patented cover systems and methods to improve upon existing digital data-compression techniques that exist only in the context of digital computer data. In other words, the disputed claims do not involve using a computer to perform steps—such as "determining a price, using organization and product group hierarchies"—that had been commonly performed without a computer. Instead, the claims are specifically directed to improved, particularized digital data compression systems and methods—technical solution which lie solely within the realm of transmitting, retrieving, and storing digital computer data. *See*, *e.g.*, '530 Patent at 1:15-55; '992 Patent at 1:20-63; '513 Patent at 1:29-2:3; '812 Patent at 1:13-56, 2:13-19.

4.   The Claimed Inventions Are Patent-Eligible Under *DDR Holdings* And Other Controlling Cases

DDR Holdings controls here. In *DDR Holdings*, the claims addressed "the problem of retaining website visitors," and more specifically, "how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink." *DDR Holdings*, 773 F.3d at 1257-58. Following explicit guidance in *Alice*, the Federal Circuit held that such claims were patent-eligible because the claimed solution is "necessarily rooted in computer technology" in

order to overcome "a problem specifically arising in the realm of computer networks." *Id*.; *see also Alice Corp.*, 134 S.Ct. at 2358-59 (clarifying that the abstract-ideas exception does not apply if the invention "improve[s] an existing technological process" or "solve[s] a technological problem in 'conventional industry practice'").   Similarly, under any fair reading here, the claimed inventions provide particular technical solutions to technical problems specific only to digital data compression.

Further, in reaching its holding, *DDR Holdings* held that even though "the [asserted] claims do not recite an invention as technologically complex as an improved, **particularized method of digital data compression**," they are still patent-eligible as a matter of law. *DDR Holdings,* 773 F.3d at 1259 (emphasis added). And the claims of the asserted patents are precisely this type of invention and, thus, patent-eligible as a matter of law. Defendants even concede that claims in the asserted patents "specify[] **particular compression techniques**." SAP Mot. at 20 (emphasis original); *see also* Actian Mot. at 8 (Defendants conceding that the claims are limited to "a **particular technological environment – in this case data compression**.") (emphasis added).

Faced with these facts, Defendants resort to mischaracterizing *DDR Holdings*. Defendants argue that *DDR Holdings* "offers no help to the four patents-in-suit because they purport to address a problem that predates the Internet." SAP Mot. at 27-28. But *DDR Holdings* discussed the Internet only to distinguish the claims-at-issue were distinguishable from the similar ones in *Ultramercial*, because the claims-at-issue did not merely "recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet." *DDR Holdings*, 773 F.3d at 1257. Thus, whether a claimed solution is directed to a problem that "predates the Internet" is not directly pertinent in determining patent-eligibility.[9]

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[9] If "predating the Internet" were dispositive, no claimed solution would be patent-ineligible if it addressed a problem that existed before the 1970s, such as any number of medical conditions or the physical storage of digital computer data.

Contrary to Defendants' faulty legal arguments, the rule expressly applied by the court in *DDR Holdings* was a different, broader one. Specifically, as this Court recently confirmed, the *DDR Holdings* rule is that a claim is patent-eligible if "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computers." *Mirror Worlds Techs.*, Dkt. 346, at *18 (emphasis added); *see also DDR Holdings*, 773 F.3d at 1257. The asserted patents' claims address improved, particularized systems and methods of compressing digital data, with multiple encoders, which can be used within a computer system or other systems using digital data. Digital data processing is a key function of computers. Even ignoring most claim elements, the patented inventions can be applied only in a system where digital data is stored and/or transmitted, and in the process is compressed and decompressed. In other words, the claims recite a solution that is "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer" data compression. *DDR Holdings*, 773 F.3d at 1257. Accordingly, the claimed inventions are patent-eligible as a matter of law.

Other controlling cases further confirm that the claims are not directed to abstract ideas. For example, in *Diamond*, the Supreme Court analyzed the patent-eligibility of a claimed process for molding rubber products that recited "in several steps [] a mathematical equation and a programmed digital computer." *Diamond*, 450 U.S. at 185. The Court held that the claims were not "an attempt to patent a mathematical formula," but, instead, were patent-eligible because they involve "the transformation of an article . . . to a different state or thing" through an improved industry process. *Id*. at 184, 192-193. Similarly, in *Research Corp.*, the Federal Circuit reversed the district court's decision of patent ineligibility because the patentees "[sought] patent protection for a process of half-toning in computer applications" rather than "a mathematical formula." *Research Corp. Technologies, Inc. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010). The court explained that the "invention presents functional and palpable applications in the field of computer technology." *Id*. at 868. The patented claims here also do not "attempt to patent a mathematical formula;" instead, the claims present "functional and

palpable" applications in the field of digital data compression. Consequently, they are patent-eligible.

Recent district court decisions also lead to the same conclusion. Indeed, these decisions have held more "abstract" subject matters than the present claims as being patent-eligible under §101. *See, e.g., Freeny, et al. v. Murphy Oil Corp., et al.*, 2:13-cv-791-RSP, Dkt. 143, *5 (E.D. Tex. May 22, 2015) ("physical systems for controlling the display and management of product prices in physical stores, utilizing specific types of electronic devices that are networked together to operate in a very specific manner"); *Trading Technologies Int'l, Inc. v. CQG, Inc., and CQGT, LLC*, Case No. 05-cv-4811, Dkt. 1073, *6 (N.D. Ill. February 24, 2015) ("a system and method whereby traders may place orders at a particular, identified price level . . . because the invention keeps the prices static in position, and allows the quantities at each price to change."); *Ameranth, Inc. v. Genesis Gaming Solutions, Inc., et al.*, Case No. 8:11-cv-00189, Dkt. 215, *8 (C.D. Cal. Nov. 12, 2014) (a "type of monitoring and player management" for poker games); *ContentGuard Holdings, Inc. v. Amazon, et al.*, 2:13-CV-1112-JRG, Dkt. 826, at *6 (E.D. Tex. Aug. 6, 2015) ("managing digital rights using specific and non-generic 'trusted' devices and systems.").

Accordingly, the Defendants cannot show that the claimed subject matter is abstract.

B.   In Any Event, Defendants Also Cannot Establish That The Claims Are Patent-Ineligible Under *Alice* Step 2

Because Defendants cannot satisfy their burden under step 1 of the *Alice* framework, step 2 need not be addressed. *See, e.g., Freeny*, Dkt. 143, at *6. But even if the Court were to find that the Defendants established that the claims were abstract, Defendants' Motions still fail because they cannot satisfy their burden under *Alice* step 2.

1.   Under Any Characterization, The Claims Include Additional Elements That Are Not Well-Understood, Routine, Or Conventional

Analysis under *Alice* step 2 requires "examination of claim elements 'both individually' and 'as an ordered combination.'" *buySAFE, Inc.*, 765 F.3d at 1353 (*quoting Alice Corp.*, 134 S.Ct. at 2355); *see also Diamond,* 450 U.S. at 188 ("[i]n determining the eligibility [] under § 101, their claims must be considered **as a whole**.") (emphasis original). To qualify as patent

eligible under step 2, it is enough that the additional elements of the patented inventions, taken together, do not comprise "well-understood, routine, conventional activity." *Ultramercial*, 772 F.3d at 715 (*quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289, 1298 (2012)).

The elements of the asserted patents' claims, when examined individually or as an ordered combination, do not comprise "well-understood, routine, conventional activity." The patents themselves demonstrate this fact in their voluminous teachings and claims. *See, e.g., supra* Section III. For example, the '992 and '513 Patents addressed specific problems in the realm of compressing digital data, including:

- "their content sensitive behavior . . . often referred to as data dependency"
- "significant variations in the compression ratio obtained when using a single lossless data compression technique for data streams having different data content and data size [*i.e.,*] natural variation"

E.g., '992 Patent at 2:66-3:10. The claimed inventions were directed at solving problems such as these. For example, the elements in claim 48 of the '992 Patent—which was allowed last year after a full reexamination—recite: (a) "receiving a data block;" (b*)* "associating at least one encoder with to each one of several data types;" (c) "analyzing the data within the data block;" (d) "compressing," with the particular "associate[ed] encoder" if said data type matches; (e) with "a default encoder to provide said compressed data block," if there is no match; and (f) "wherein the analyzing … excludes [] based only on a descriptor indicative of the data type within the data block." '992 Patent Reexamination Certificate at 2:7-25. And the independent claims of the '513 Patent include similar additional limitations, and further limitations that call for analyzing the digital data where: (g) applying the appropriate "content independent compression" algorithm "excludes analyzing based only on a descriptor indicative of the characteristic, attribute, or parameter" of the "data block." *E.g.,* '513 Patent at 26:22-47.

Similarly, the '812 Patent explains the problems associated with the prior art, including:

- "[a]lgorithmic efficiency assumes that a given algorithm is implemented in an optimum object code representation executing from the optimum places in

> memory [but] is virtually never achieved in practice due to limitations within modern optimizing software compilers"

- "an optimum algorithmic implementation for a given input data set may not be optimum for a different data set"

E.g., '812 Patent at 2:1-3:2. To help resolve these types of problems, the claim elements require specific compressors for the digital data, and more, including: (a) "a run-length encoder for encoding a sequence of similar data blocks in the input data"; (b) "a dictionary encoder for encoding a data block string;" (c) "comprising at least one data block in the input data using a code word in the dictionary, wherein"; (d) "the output of the run-length encoder and dictionary encoder are combined to form an encoded data stream." *E.g.*, '812 Patent at 20:17-31.

Last, but not least, the '530 Patent—which also had claims confirmed in a recent reexamination— overcame numerous problems in digital data compression, with a specific eye toward acceleration of digital computer data storage and retrieval:

- "high performance disk interface standards . . . offer only the promise of higher data transfer rates through intermediate data buffering in random access memory"

- "[f]aster disk access data rates are only achieved by the high cost solution of simultaneously accessing multiple disk drives with a technique known within the art as data striping"

- "[a]dditional problems with bandwidth limitations … within the art by all other forms of sequential, pseudorandom, and random access mass storage devices"

'530 Patent at 2:19-54. To address this category of problems, the claims include: (a) "a data accelerator"; (b) "coupled to [a] memory device"; (c) where the accelerator "compresses a data stream"; (d) including "a first data block with a first compression technique"; (e) a "second data block with a second [and different] compression technique"; (f) a "first data descriptor is stored on said memory device" and "utilized to decompress the portion of said compressed data stream associated with said first data block." *E.g.*, '530 Patent at 18: 24-43. Defendants ignore these key facts.

Thus, the claimed solution does not recite "well-understood, routine, conventional activit[ies]" but, instead, is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of compression of digital computer data. Accordingly,

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they are patent-eligible under controlling law. *E.g.*, *DDR Holdings*, 773 F.3d at 1257. As previously explained, the asserted claims present an even clearer case of patent-eligibility than claims expressly blessed by the Federal Circuit. *Id*. at 1259.

To be sure, the asserted claims also present a clearer case of patent-eligibility than other claims approved by district courts. *See, e.g., Smartflash*, 2015 WL 661174, at *9 (the claims recite "specific ways of managing access to digital content data" so that "[they] solve problems faced by digital content providers in the Internet Era and 'improve the functioning of the computer itself by providing protection for proprietary digital content'"); *Card Verification Solutions*, 2014 U.S. Dist. LEXIS 137577, at *14-15 ("claim requiring the addition of the tags" for credit card transaction verification "transform[s] data from one form to another" because "[t]he addition of the tag transforms a credit card number into an identifier for use by the verifying party").

Against this factual backdrop, Defendants fail to demonstrate that claimed digital data compression systems and methods were "well-understood, routine, conventional activit[ies]" that were previously known to the industry at the time of filing. *See Alice Corp.*, 134 S.Ct. at 2359. Rather, Defendants only describe the complex inventive concepts within the realm of digital data compression across three separate patent families, as "two compression techniques are better than one." This is wholly insufficient, under the Rule 12 or any standard.

Using their conclusory, incorrect arguments, Defendants attempt to analogize this case to others involving claims that recite generic computers performing generic or abstract computer functions. That attempt fails. None of those cases involved claims that were necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of compression of computer data. *See, e.g., Alice Corp.*, 134 S.Ct. at 2350 (claims reciting implementation of an "intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk," on a generic computer); *OIP Techs. Inc., v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("the claims describe the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions"); *Bancorp*

Servs., LLC v. Sun Life Assur. Co. of Canada (U.S.), 687 F.3d 1266, 1278-81 (Fed. Cir. 2012) (claims reciting implementation of "the mathematical concept of managing a stable value life insurance policy" on a computer); *Versata Dev. Group*, 2015 WL 4113722, at *26 ("The claims are directed to price determination and merely use a computer to improve the performance of that determination."); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (claims directed to "avoiding loss of data" on the Internet); *Loyalty Conversion Systems Corp. v. American Airlines,* 66 F. Supp. 3d 829, 845-46 (E.D. Tex. 2014) ("The patents . . . claim any conventional loyalty award conversion system that uses computers and interactive websites to perform the conversions."); *Enfish, LLC v. Microsoft Corp.*, 56 F.Supp.3d 1167, 1176 (C.D. Cal. 2014) (claims directed to "storing, organizing, and retrieving memory in a logical table" on a computer); *Dealertrack*, 674 F.3d at 1333 (claim reciting "the clearinghouse concept"); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) (claims reciting "generat[ion of] tasks [based on] rules . . . to be completed upon the occurrence of an event."); *Ultramercial*, 772 F.3d at 715-16 (claims directed to "offering media content in exchange for viewing an advertisement"); *CyberSource*, 654 F.3d at 1376 (claim reciting "fraud detection method").

Defendants' argument that the asserted patents do not improve the technology in the field because the claims use "existing" algorithms also fails. *See*, *e.g.*, SAP Mot. at 24-25; Actian Mot. at 6-8, 12-16. The Court has long held that "under § 101, the[] claims must be considered **as a whole**. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis." *Ultramercial*, 722 F.3d at 1344. Moreover, establishing that claimed features constitute an "inventive concept" for purposes of *Alice* step 2 does not entail an analysis of whether the features were novel and non-obvious over the prior art. *Bilski*, 561 U.S. at 602 ("The § 101 patent-eligibility inquiry is only a threshold test" preceding an analysis of whether "the invention [is] novel, see § 102, non-obvious, see § 103."). At any rate, all claims are presumed valid—and are valid—under §§ 102 and 103. In fact, each patent claim was allowed over a legion of prior art during examination and reexamination.

2.   Defendants' "Generic Computer" Argument Also Fails

Defendants argue that the claims are somehow patent-ineligible because they can be implemented on a "generic computer" and are "device agnostic." *See*, *e.g.,* SAP Mot. at 24 ("[The claims] amount to, at most, a naked instruction to implement the abstract idea using conventional elements of 'generic computer[s].'"); *id.* at 3 ("The patent claims . . . do not restrict the idea to use with any new machine or device."); *id.* at 6 ("each claim is device-agnostic"). This argument likewise fails.

The claimed solutions can never be implemented without specific computer technology that must be specifically configured to perform the recited complex tasks. *See*, *e.g.*, *supra* Section V-B-1. Simply put, a generic computer with generic hardware and software cannot meet these claim limitations. For example, generic computer hardware or software could not "analyzing the data within the data block … wherein the analyzing … excludes [] based only on a descriptor indicative of the data type within the data block." '992 Patent Reexamination Certificate at 2:7-25. Such generic components likewise would not include the "a data accelerator" and "descriptor," as claimed in the '530 Patent, or the run-length encoders and dictionary encoders, as claimed in the '812 Patent. Moreover, not even generic computer hardware or software that utilizes two different types of encoders meets these requirements. Defendants cannot prove otherwise.

Accordingly, Defendants also fail to show that the claimed inventions do not satisfy *Alice* step 2.

C.   Defendants' "Representative" and "Remaining Claims" Shortcuts Also Fail

Defendants' failure to address all the elements of any one of the purported "representative" claim, let alone all elements of all claims, is fatal to their motion. When conducting a §101 analysis, each claim must be considered independently. *See, e.g.*, *Bilski*, 561 U.S. at 611-12 (analyzing the dependent claims separately from the independent claim). Moreover, aside from conclusory and unsupported attorney argument—*e.g.*, SAP Mot. at 12, Actian Mot. at 14—Defendants have made no showing with respect to over one hundred

"remaining" claims, many of which include narrower dependent claims, and therefore, cannot meet their burden on any of the patented claims. *See, e.g.*, *Ameranth, Inc. v. Genesis Gaming Solutions, Inc., et al.*, Case No. 8:11-cv-00189, Dkt. 288, at *8 (C.D. Cal. Jan. 2, 2015) (rejecting § 101 challenge and noting "the Court must consider all elements of each challenged claim, not just the additional limitations recited in the dependent claims.").

At bottom, Defendants cannot show that the asserted patent claims are ineligible under § 101 under any standard, let alone the heightened standards they face on a motion to dismiss.

VI. AT THE VERY LEAST, DEFENDANTS' MOTIONS DEMONSTRATE DISPUTED ISSUES THAT PRECLUDE DISMISSAL AT PLEADINGS STAGE

"While handling the issue of section 101 eligibility at the pleading stage is permissible, those issues are often inextricably tied to claim construction." *Phoenix Licensing, LLC et al., v. Centurylink, Inc.*, Case No. 2:14-cv-00965-JRG-RSP, Dkt. 184, at *4 (E.D. Tex. Aug. 17, 2015). As Judge Payne recently held, "the Court cannot simply assume Defendants' characterizations of the claims and implicit positions on the meaning of claim terms are correct without a meaningful ability to examine fully what a person of ordinary skill in the art would interpret those terms to mean." *Id*. at *5 (*citing Mayo Collaborative Servs.*, 132 S.Ct. at 1293–94). Instead, this Court should have "a meaningful ability to examine fully what a person of ordinary skill in the art would interpret those terms to mean." *Id*.; *see also*, *Ameranth*, Dkt. 288, at *12 (denying Rule 12 motion where unconstrued terms were "a further aspect of the claim which, in combination with the other elements, may contribute to a patent-eligible invention.").

"While the claim language of some patents may be so clear that the court need only undertake a facial analysis to render it invalid at the pleading stage, that will not be the norm and is certainly not the case here." *Phoenix Licensing, LLC*, Dkt. 184, at *5. The need to carefully examine the claims at issue is particularly needed here, given the conflict between Defendants' characterizations of the claimed inventions and any reasonable reading of the actual claims and specifications of the asserted patents. *See, e.g.*, *supra* Sections V-A and V-B. This is especially true where, as here, many of the elements of the claims of the '922, '530, and '513 Patents have

not been construed, and no claim elements of the '812 Patent have ever been construed. For example, any reasonable construction of "analyzing the data within the data block … wherein the analyzing … excludes [] based only on a descriptor indicative of the data type within the data block" would demonstrate that claims of the '513 and '992 cannot be met by wholly generic computer hardware or software. The same is true of the claimed "a data accelerator" and "run-length" encoders and "dictionary" encoders.

Further, "patent eligibility under § 101 presents an issue of law … contain[ing] underlying factual issues." *Accenture Global Servs.*, 728 F.3d at 1340-41. In order to rule for Defendants, the Court will have to first resolve several disputed issues of material fact, including: (a) the core aspects of the patented inventions; (b) whether the claimed inventions can be performed with pencil and paper; (c) whether the claimed inventions are application-agnostic; (d) whether the claimed inventions are merely generic-computer implementations of abstract ideas; and (e) whether all additional claim limitations are well understood, routine, or conventional. *See*, *e.g.*, *supra*, Sections V-A and V-B. It is highly likely that there will be subsidiary issues of fact relevant to each issue as well. And as previously explained, several of these issues are disputed amongst the Defendants themselves. Viewing these and other facts in a light most favorable to Realtime precludes any dismissal at this stage. *Bell Atl. Corp.,* 550 U.S. at 555.

VII. CONCLUSION

For the foregoing reasons, Realtime respectfully requests that the Court deny Defendants' Motions in their entirety.

Dated: August 24, 2015   Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on August 24, 2015, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by electronic mail, facsimile transmission and/or first class mail on this same date.

　　　　　　　　　　　　　　/s/ *Marc A. Fenster*

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